

# Petr Stepanov

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Ph.D. graduate in physics with 5+ years of expertise in the user interface (UI) and user experience (UX) design. Strong web application and desktop software development skills.

## Summary of Qualifications

### Work Experience

#### C++ Software Developer

[Thomas Jefferson National Laboratory \(JLab\)](#), Newport News, VA, USA.

Jul 2020 - Dec 2022

#### Software Developer • Postdoctoral Researcher

[Catholic University of America \(CUA\)](#), Washington, DC, USA.

Jul 2020 - Dec 2022

#### Software Developer • Research Assistant

[Bowling Green State University \(BGSU\)](#), Bowling Green, OH, USA.

Aug 2014 - May 2020

- Wrote three desktop GUI programs for spectra fitting and interpretation (C++, CMake, ROOT, Qt, Java)
  - GitHub repositories contain over 10k lines of code in total: [TLIST Processor](#), [SW Calculator](#), [RooPositron](#).
  - Extended default ROOT GUI library (Qt-based) to support the MVP design pattern.

#### UI/UX Designer, Frontend Developer • Freelance

Sep 2012 - May 2020

- Designed and built an online e-commerce store [Sticker Store LLC](#) with a static website generator (Figma, Hexo, Snipcart, Bootstrap, SASS, Express.JS, EJS, Node.js).
  - Improved the Google PageSpeed Insights metrics (CLS, LCP) up to 97%.
  - Created a recursive script to export over 300 products from YAML file to Google Merchant.
  - Optimized SEO. The project reached over 1400 organic monthly users.
- Made iOS application (Swift, UIKit, storyboards) for the [We.Team](#) messenger (more than 3k monthly downloads in AppStore). Participated in cloud-based messenger development with enhanced file sharing capabilities (HTML, React JS, SASS).
- Migrated the landing page for [Sweetbridge](#) company from WordPress to Jekyll static site generator (Ruby, CSS). This resulted in a 70% improvement in the page load time.
- Developed the front-end part (Angular.js, HTML, LESS) for [Lili Social](#) network.
  - Assisted with iOS mobile application (Ionic).
  - Enabled SEO crawling of over 1000 Angular.js pages with Google bot.
- Web design.
  - Designed logos, UI/UX prototypes (Figma, Sketch, Illustrator) and branding identity for over [10 different companies](#).
  - Converted numerous design assets and mockups into responsive HTML and CSS.
  - Mocked up and integrated dozens of cross-browser responsive email templates.

#### Web Designer, Full Stack Web Developer

[Gridnine Systems](#), Moscow, Russia.

Apr 2011 - Aug 2014

- Prototyped and designed interactive mockups for [Otixo](#) cloud file integrator (Balsamiq, Adobe Creative Suite). Utilized Google Web Toolkit (GWT) Model-View-Presenter (MVP) framework to develop application frontend (JavaScript, responsive CSS).
- Responsible for the front-end development of the [ATH American Express](#) – the largest travel management company in Russia (JavaScript, Backbone.js, and RequireJS). Increased the front-end load time by over 30%.
- Implemented image processing servlets on the backend to generate banners for five different social networks (PHP, ImageMagic).
- Wireframed and sliced to web pages numerous UI/UX mockups for web applications (Balsamiq, Photoshop, HTML and CSS).

### **Computer Science Teacher**

[Phys-Tech College at MIPT](#), Moscow, Russia.

**Oct 2009 - May 2011**

- Provided instructions and guidance to high school students on following computer courses: C/C++ programming, HTML, Adobe Photoshop and 3D Studio Max.

### **Research Scientist**

[Institute for Theoretical and Experimental Physics \(ITEP\)](#), Moscow, Russia.

**Sep 2008 - Apr 2011**

- Application of positron lifetime spectroscopy for studying the radioactive-induced defects in steels. Monte-Carlo particle simulations with Fortran 95. Maintaining software for CAMECA tomographic atom probe (MSVC). Application of CERN ROOT libraries for fitting and analysis of experimental spectra.

## **Education**

### **Bowling Green State University (BGSU) • Ohio, USA**

**Aug 2014 - May 2020**

Ph.D. in Photochemical Sciences • GPA 3.423. Novel developments in positron annihilation spectroscopy techniques—from experimental setups to advanced processing software. [View manuscript](#).

### **British Higher School of Art and Design (BHSAD) • Moscow, Russia**

**Dec 2011 - Feb 2012**

Three-month intensive course in Graphical Design and Visual Communications. Lectures and hands-on experience in graphic design and user interfaces.

## **Professional Networks**

- Find examples of my code [on GitHub](#) (50+ repositories).
- Discover my professional contacts [on LinkedIn](#) (200+ connections).
- Check out my UI design portfolio [on Dribbble](#) (50+ shots).

## **Interests**

- Hosting an open-source project for keyboard remapping on Linux [300+ stars on GitHub](#).
- Contributing to the C++ open source framework ROOT. Created two shared libraries to facilitate data analysis. Links to GitHub: [CanvasHelper](#) and [RootUtils](#).